INTERNAL CORE PROFILE FOR THE AIRFOIL OF A TURBINE BUCKET

ABSTRACT OF THE DISCLOSURE

First stage turbine buckets have internal core profiles substantially in accordance with Cartesian coordinate values of X, Y and Z set forth Table I wherein X and Y values are in inches and the Z values are non-dimensional values convertible to Z distances in inches by multiplying the Z values by the height of the airfoil in inches. The X and Y values are distances which, when connected by smooth continuing arcs, define internal core profile sections at each distance Z. The profile sections at each distance Z are joined smoothly to one another to form a complete internal core profile. The X, Y and Z distances may be scalable as a function of the same constant or number to provide a scaled up or scaled down internal core profile. The nominal internal core profile given by the X, Y and Z distances lies within an envelope of ± 0.050 inches in directions normal to any internal core surface location.